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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,373	02/21/2007	Kenzo Takahashi	0388-060908	2738

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EXAMINER

KING, FELICIA C

ART UNIT	PAPER NUMBER
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1789

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/573,373	TAKAHASHI ET AL.	
	Examiner	Art Unit	
	FELICIA C. KING	1789	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13, 14, 19, 21 and 23-36 is/are pending in the application.
- 4a) Of the above claim(s) 23-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13, 14, 19, 21 and 32-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

This Office Action is written in response to Applicants' Remarks filed 9/24/10 and 11/1/10.

Claims 13, 14, 19, 21, 23-36 are pending. Claims 13, 14, 19, 21, 32-36 have been examined.

Claims 23-31 have been withdrawn. Claims 1-12, 15-18, 20, and 22 have been cancelled.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. **Claims 13, 14, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirby (US 2,231,148) and Boniello et al. (US 4,867,992).**

Regarding Claims 13 and 32: Kirby discloses a method of fermenting pulped unground green coffee beans with a microorganism in the form of yeast and in the presence of a nutritive substance which is malt (sugar or grain) [pg.1, col.1, lines 38-55] and is then brought into contact with pulped coffee beans [pg.1, col.1, lines 54-55, col. 2 line 1]. Kirby discloses fermenting for 15 to 30 hours [col. 2, lines 1-13]. Kirby does not disclose that the yeast is brewer's yeast. Kirby does not disclose that the nutritive substance comprises at least one of fruit juice or fruit pulp and does not disclose that the fermentation takes place for at least 48 hours.

Boniello discloses fermenting coffee substrates such as ground green coffee beans; coffee pulp, mucilage, and husks and spent grounds, with yeast or lactic acid bacteria [col. 2, 39-63]. Boniello discloses fermenting from 8 to 96 hours [col. 3, lines 7-17]. Boniello also discloses fermenting the coffee substrate with yeast for 3 days (72 hours) [Ex. 6]. Boniello discloses *Saccharomyces uvarumini*, yeast which is used to make beer and wine [Abstract, Ex. 7].

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At the time of the invention it would have been obvious to one of ordinary skill in the art having the teachings of Kirby, and Boniello before him or her to modify the yeast of Kirby for the yeast of Boniello because brewer's yeast is commonly used in fermentation process for the formation of beverage products and would provide a flavor distinct to what is produced by brewer's yeast to the coffee beans upon fermentation. Further, the yeast, *Saccharomyces uvarum*, in Boniello is a wine yeast that produces a winery flavor in coffee products [Abstract, Ex. 7] and therefore it would have been obvious to add the wine yeast to coffee beans in order to produce desired winery flavors, regardless of the form of coffee substrate.

Further, it would have been obvious to ferment the coffee for at least 48 days, since Boniello discloses as example where yeast was used to ferment coffee for 72 hours which is at least 48 hours. Boniello discloses that this time is sufficient for producing the desired flavoring.

Regarding Claim 14: Kirby discloses a method of fermenting pulped coffee beans with a microorganism in the form of yeast and in the presence of a nutritive substance which is malt (sugar or grain) [pg.1, col.1, lines 38-55] and further discloses washing the fermented beans by placing them in a tank [col.2, lines 24-40]. This is considered commensurate with the claim as Applicant's specification states that washing with water is an acceptable method of separation/segregation of coffee beans [10573373 pg 20 lines 11-17].

3. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirby (US 2,231,148) in view of Boniello et al. (US 4,867,992) and Zapp et al. (US 6,660,322).

Regarding Claim 21: Kirby discloses a method of fermenting unground pulped coffee beans (considered green because they have not undergone processing) with a microorganism in the form of yeast and in the presence of a nutritive substance which is malt (sugar or grain) [pg.1, col.1, lines 38-55]. Kirby discloses fermenting for 15 to 30 hours [col. 2, lines 1-13]. Kirby does not

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disclose that the yeast is brewer's yeast. Kirby does not disclose that the nutritive substance comprises at least one of fruit juice or fruit pulp and does not disclose that the fermentation takes place for at least 48 hours. Kirby does not disclose roasting the fermented green coffee beans. Kirby does not disclose adding water to the roasted coffee beans and then extracting water by filtration with a filter.

Boniello discloses fermenting coffee substrates such as ground green coffee beans; coffee pulp, mucilage, and husks and spent grounds, with yeast or lactic acid bacteria [col. 2, 39-63]. Boniello discloses fermenting from 8 to 96 hours [col. 3, lines 7-17]. Boniello also discloses fermenting the coffee substrate with yeast for 3 days (72 hours) [Ex. 6]. Boniello discloses *Saccharomyces uvarum*, yeast which is used to make beer and wine [Abstract, Ex. 7].

Zapp discloses roasting green coffee beans and that the coffee beans are fermented [col. 3, Ex 1; claims 1-7].

25].

At the time of the invention it would have been obvious to one of ordinary skill in the art having the teachings of Kirby, Boniello, and Zapp before him or her to modify the yeast of Kirby for the yeast of Boniello because brewer's yeast is commonly used in fermentation process for the formation of beverage products and would provide a flavor distinct to what is produced by brewer's yeast to the coffee beans upon fermentation.

Further, it would have obvious to grind the roasted fermented green beans of Kirby in order to prepare the beans for brewing and beverage formation purposes.

4. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirby (US 2,231,148) and Boniello et al. (US 4,867,992) as applied to claim 13 above and in further view of Okada (US 2004/0005381).

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Regarding Claim 33: Kirby discloses a method of fermenting unground pulped coffee beans as discussed above. Kirby does not disclose that coffee is fermented with Lalvin L2323 strain or CK S102.

Boniello disclose using wine fermentation yeast to ferment coffee substrates as discussed above. Boniello does not disclose the Lalvin L2323 strain or CK S102.

Okada discloses yeast for wine fermentation that is Lalvin L2323 [0047, 0068].

At the time of the invention it would have been obvious to one of ordinary skill in the art having the teachings of Kirby, Boniello, and Okada before him or her to modify the methods of Kirby and Boniello as discussed in claim 13 to incorporate the specific wine strain Lalvin L2323, since the strain is known to produce a flavor/aroma particular to red wine. The strain selection would have been based upon the desired outcome of flavor/aroma of one of ordinary skill. It would have been obvious to one of ordinary skill in the art to apply known yeasts to known coffee substrates in a manner that is well known in the art.

5. Claims 34 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kirby (US 2,231,148) and Boniello et al. (US 4,867,992), as applied to claim 13 above and in further view of Mori (JP 11043390 Derwent Abstract).

Regarding Claims 34 and 19: Kirby discloses a method of fermenting green coffee as discussed above. Kirby does not disclose adding dried pulp.

Mori discloses quicker fermentation by using an additive having fruit pulp which is soluble coffee bean pulp that is mixed with shavings which implies a dry composition.

At the time of the invention it would have been obvious to one of ordinary skill in the art having the teachings of Kirby, Boniello, and Mori before him or her to modify the method of Kirby

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to incorporate dried pulp in order to better ferment the coffee beans as Kirby teaches that the combination of pulp and yeast advantageously increases the rate of fermentation.

6. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirby (US 2,231,148) in view of Boniello et al. (US 4,867,992), Zapp et al. (US 6,660,322), and Enomoto (US 3,267,507).

Regarding Claim 35: Kirby discloses a method of fermenting unground pulped coffee beans (considered green because they have not undergone processing) with a microorganism in the form of yeast and in the presence of a nutritive substance which is malt (sugar or grain) [pg.1, col.1, lines 38-55]. Kirby discloses fermenting for 15 to 30 hours [col. 2, lines 1-13]. Kirby does not disclose that the yeast is brewer's yeast. Kirby does not disclose that the nutritive substance comprises at least one of fruit juice or fruit pulp and does not disclose that the fermentation takes place for at least 48 hours. Kirby does not disclose roasting the fermented green coffee beans. Kirby does not disclose adding water to the roasted coffee beans and then extracting water by filtration with a filter.

Boniello discloses fermenting coffee substrates such as ground green coffee beans; coffee pulp, mucilage, and husks and spent grounds, with yeast or lactic acid bacteria [col. 2, 39-63]. Boniello discloses fermenting from 8 to 96 hours [col. 3, lines 7-17]. Boniello also discloses fermenting the coffee substrate with yeast for 3 days (72 hours) [Ex. 6]. Boniello discloses *Saccharomyces uvarumin*, yeast which is used to make beer and wine [Abstract, Ex. 7].

Zapp discloses roasting green coffee beans and that the coffee beans are fermented [col. 1, Ex 1; claims 1-7].

Enomoto discloses roasting and grinding coffee beans and filtering with water through a filter basket in order to produce a coffee beverage [col.1,lines 54-68, col. 2, lines 1-25].

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At the time of the invention it would have been obvious to one of ordinary skill in the art having the teachings of Kirby, Boniello, Zapp, and Enomoto before him or her to modify the yeast of Kirby for the yeast of Boniello because brewer's yeast is commonly used in fermentation process for the formation of beverage products and would provide a flavor distinct to what is produced by brewer's yeast to the coffee beans upon fermentation.

Further, it would have obvious to grind the roasted fermented green beans of Kirby in order to prepare the beans for brewing and beverage formation purposes and to further add water and to extract the water with a filter in order to produce a coffee beverage because it is a conventional method used in the art to make coffee beverages.

7. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kirby (US 2,231,148) in view of Boniello et al. (US 4,867,992), Zapp et al. (US 6,660,322), Enomoto (US 3,267,507), and Bradbury et al. (US 6,054,162).

Regarding Claim 35: Kirby discloses a method of fermenting unground pulped coffee beans (considered green because they have not undergone processing) with a microorganism in the form of yeast and in the presence of a nutritive substance which is malt (sugar or grain) [pg.1, col.1, lines 38-55]. Kirby discloses fermenting for 15 to 30 hours [col. 2, lines 1-13]. Kirby does not disclose that the yeast is brewer's yeast. Kirby does not disclose that the nutritive substance comprises at least one of fruit juice or fruit pulp and does not disclose that the fermentation takes place for at least 48 hours. Kirby does not disclose roasting the fermented green coffee beans. Kirby does not disclose adding water to the roasted coffee beans and then extracting water by filtration with a filter.

Boniello discloses fermenting coffee substrates such as ground green coffee beans; coffee pulp, mucilage, and husks and spent grounds, with yeast or lactic acid bacteria [col. 2, 39-63].

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Boniello discloses fermenting from 8 to 96 hours [col. 3, lines 7-17]. Boniello also discloses fermenting the coffee substrate with yeast for 3 days (72 hours) [Ex. 6]. Boniello discloses *Saccharomyces uvarum*, yeast which is used to make beer and wine [Abstract, Ex. 7].

Zapp discloses roasting green coffee beans and that the coffee beans are fermented [col. 1, Ex 1; claims 1-7].

Enomoto discloses roasting and grinding coffee beans and filtering with water through a filter basket in order to produce a coffee beverage [col.1, lines 54-68, col. 2, lines 1-25].

Bradbury discloses adding coffee extract to a container and then subjecting the extract in the container to retort processing [col. 1, lines 50-60]. It is known in the art that retort processing involves the sterilization of ready to eat packaged foods.

At the time of the invention it would have been obvious to one of ordinary skill in the art having the teachings of Kirby, Boniello, Zapp, Enomoto, and Bradbury before him or her to modify the yeast of Kirby for the yeast of Boniello because brewer's yeast is commonly used in fermentation process for the formation of beverage products and would provide a flavor distinct to what is produced by brewer's yeast to the coffee beans upon fermentation.

Further, it would have obvious to grind the roasted fermented green beans of Kirby in order to prepare the beans for brewing and beverage formation purposes and to further add water and to extract the water with a filter in order to produce a coffee beverage because it is a conventional method used in the art to make coffee beverages.

Further, it would have been obvious to package and retort sterilize the coffee extract in order to provide a packaged coffee extract free from microbial contamination and with increased shelf stability.

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Response to Arguments

8. Applicant's arguments, see pages 6-10, filed 9/24/10, with respect to the rejections of claims 13, 14, 19, 21, and 22 under Kirby (US 2,231,148) and other secondary references have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new grounds of rejection is made in view of the prior art references as discussed in the above Office Action.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FELICIA C. KING whose telephone number is (571)270-3733. The examiner can normally be reached on Mon- Thu 7:30 a.m.- 5:00 p.m.; Fri 7:30 a.m. - 4:00 p.m. alternate Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/F. K./

Examiner, Art Unit 1789

/Timothy M. Speer/

Primary Examiner, Art Unit 1784